Calibre

- Elite grain yield
- Derived from popular variety Scepter®
- Very widely adapted, suited to all growing regions of WA
- Longer coleoptile than most commonly grown varieties
- Good sprouting tolerance, similar to Scepter®, better than Vixen®
- Improved powdery mildew resistance over Scepter®
- Quick-mid maturity, similar to Mace®
- AH quality classification

Breeder's comments

Calibre$^{\Phi}$ (tested as RAC2721) is the first variety derived from Scepter$^{\Phi}$ to hit the market and is the next step for growers looking to achieve the gains they made by switching from Mace$^{\Phi}$ to Scepter$^{\Phi}$.

Not only is Calibre$^{\Phi}$ the next step in grain yield, it also offers growers the opportunity to access longer coleoptile genetics in an elite yielding background. The coleoptile length of a wheat variety is a factor that limits how deep you can plant. So, it's not surprising that there are many instances where a longer coleoptile is needed: when there is a chance of furrow fill by wind or rain; when chasing receding moisture profiles; or when trying to achieve adequate pre-emergent herbicide separation. Magenta$^{\Phi}$ is a good example of a variety with a longer coleoptile that has been used in the past by growers to manage such situations but is now outclassed. Calibre$^{\Phi}$ has a similar coleoptile length to Magenta$^{\Phi}$ but with market leading yield performance.

With elite grain yield, improved coleoptile length, AH quality, very wide adaptation, and a disease package similar to its parent Scepter$^{\Phi}$, Calibre$^{\Phi}$ makes an excellent replacement for Scepter$^{\Phi}$. The yellow leaf spot resistance of Calibre$^{\Phi}$ is good, achieving a very similar level of resistance to Scepter$^{\Phi}$. Calibre$^{\Phi}$ also offers a valuable improvement in stem rust, stripe rust and powdery mildew resistance over Scepter$^{\Phi}$.

Seed availability

Commercial quantities of Calibre$^{\Phi}$ may be available through AGT Affiliates, or your local retailer. Please consult the AGT website for AGT Affiliate contact details. Calibre$^{\Phi}$ can be traded between growers upon the completion of a License Agreement as part of AGT's Seed Sharing™ initiative.

PBR and EPR

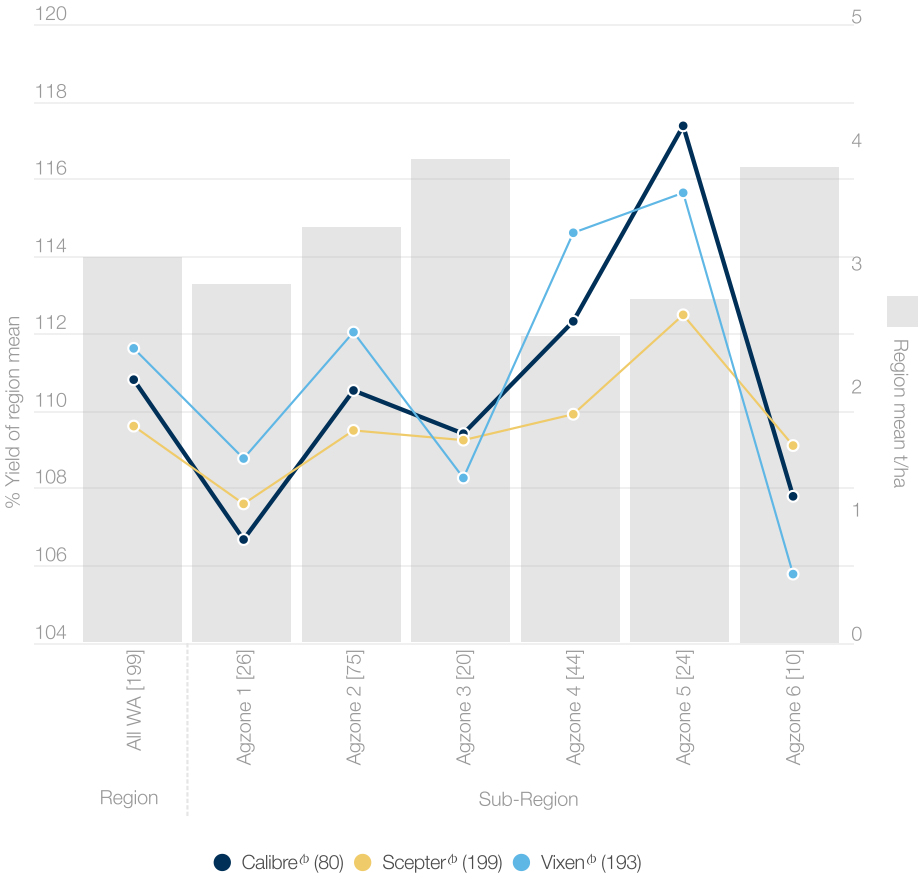
Calibre$^{\Phi}$ is protected by Plant Breeders Rights (PBR) (denoted by the $^{\Phi}$ symbol) and all production (except seed saved for planting) is liable to an End Point Royalty (EPR), which funds future plant breeding. Calibre$^{\Phi}$ growers will be subject to a Growers License Agreement that acknowledges that an EPR of $3.50/tonne + GST must be paid on all production other than seed saved for planting.

Grain yield

NVT long term data shows that Calibre$^{\Phi}$ has yielded exceptionally well relative to comparator varieties in most regions of WA, offering a slight yield advantage over Scepter$^{\Phi}$ overall, and similar to Vixen$^{\Phi}$ (Figure 1).

Viewing data by yield potential band, we see that Calibre$^{\Phi}$ has enjoyed a clear yield advantage over Scepter$^{\Phi}$ in trials that have yielded less than 4t/ha, with Scepter$^{\Phi}$ gaining an advantage over Calibre$^{\Phi}$ in higher yielding environments (Figure 2).

Figure 1. Grain yield of Calibre$^{\Phi}$ versus comparators

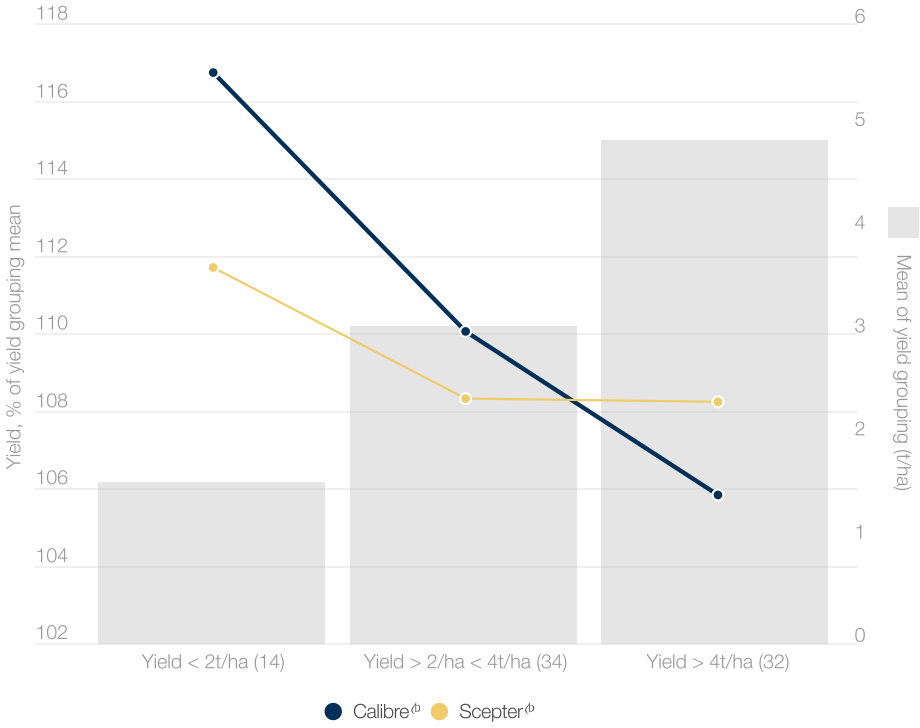


Source: NVT main season series long term MET analysis 2017-2021

[ ] Total number of trials per region

( ) Number of trials that each variety was present in across the Western Australian dataset [199]

Figure 2. Grain yield of Calibre$^{\Phi}$ versus Scepter$^{\Phi}$ - yield bands



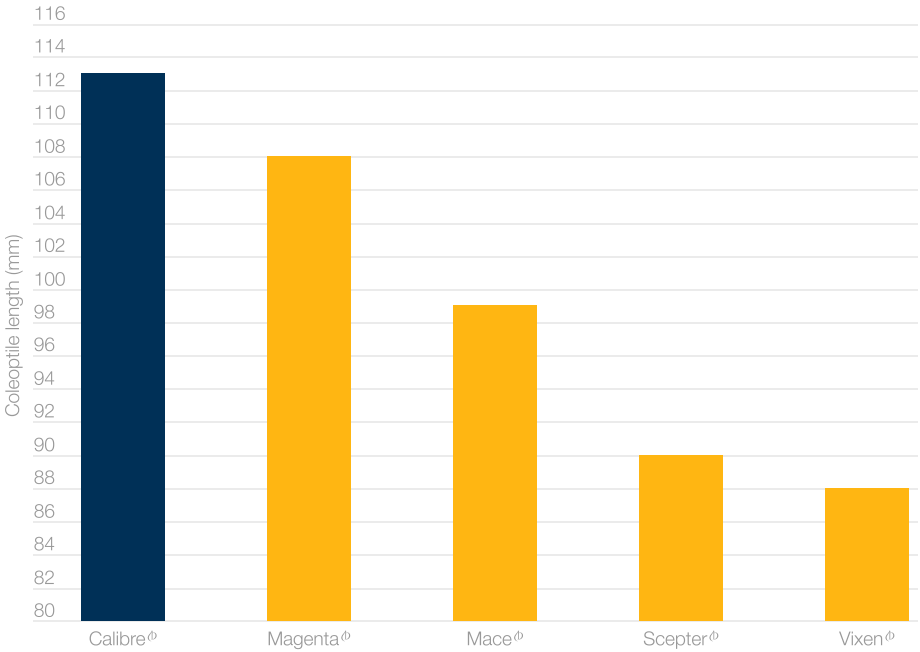
Source: NVT main season series 2020-2021 (80 trials across WA)

( ) Number of trials

Coleoptile length

Calibre$^{\Phi}$ has a much longer coleoptile than many currently grown varieties, which may prove beneficial in some situations (Figure 3).

Figure 3. Coleoptile length of Calibre$^{\Phi}$ versus comparators

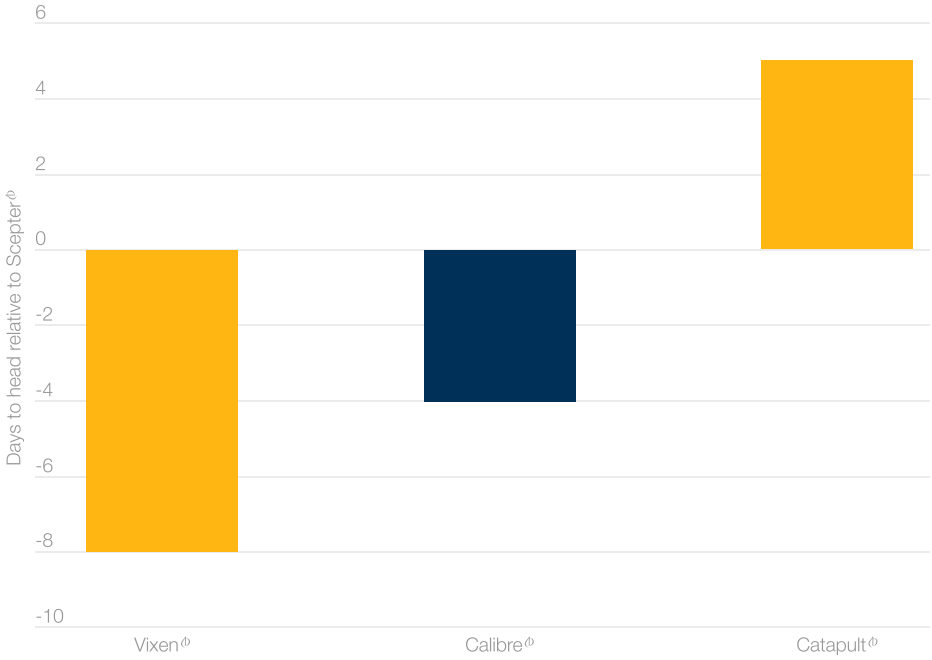


Source: AGT coleoptile experiment, average of three trials 2018-2021

Maturity

Calibre$^{\Phi}$ is a quick-mid maturing variety, a few days slower than Vixen$^{\Phi}$ and a little quicker than Scepter$^{\Phi}$. Those that are familiar with the maturity of Mace$^{\Phi}$ and Scepter$^{\Phi}$ should feel comfortable in planting Calibre$^{\Phi}$ in a similar sowing window (Figure 4).

Figure 4. Head emergence of Calibre$^{\Phi}$ and comparators relative to Scepter$^{\Phi}$

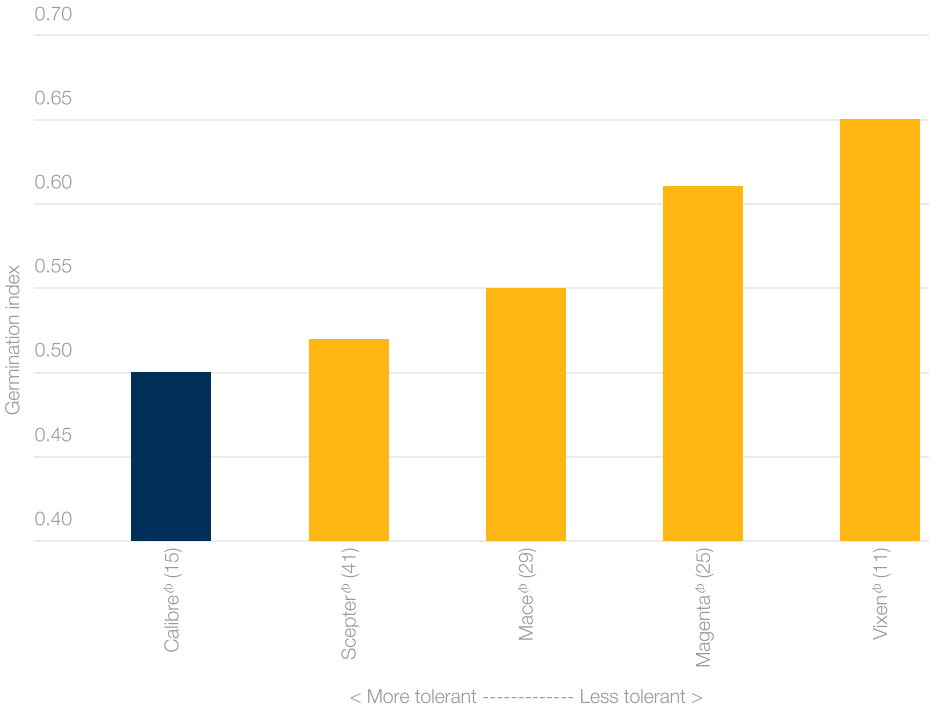


Source: AGT Northam main season trial 2019-2021

Disease resistance & agronomics

Calibre$^{\Phi}$ holds strong resistance to stem and stripe rust, and limited data suggests that it has slightly better resistance to powdery mildew than Scepter$^{\Phi}$ and Vixen$^{\Phi}$ (Table 1). The sprouting tolerance of Calibre$^{\Phi}$ is very similar to Scepter$^{\Phi}$, offering an advantage over Vixen$^{\Phi}$ (Figure 5).

Figure 5. Sprouting tolerance of Calibre$^{\Phi}$ versus comparators



Source: AGT Germination Index testing 2016-2020

( ) reps tested

Table 1. Variety comparisons

	Calibre$^{\phi}$	Scepter$^{\phi}$	Vixen$^{\phi}$
Quality Classification	AH	AH	AH (N)
Stem Rust	MR	MRMS	MRMS
Stripe Rust	RMR	MR	MRMS
Leaf Rust	S	MSS	SVS
Yellow Spot	MRMS	MRMS	MRMS
Powdery Mildew	MSS*	S	S
Sprouting tolerance#	MII	MII	IVI

R Resistant
MR Moderately Resistant
MS Moderately Susceptible
S Susceptible
VS Very Susceptible
Rating from AGT Germination Index trials
* Provisional rating

Source: NVT consensus ratings 2021 and AGT

Published July 2022

Publication #22-011

Alana Hartley, Variety Support Manager, Northern WA: 0417 919 299
Floyd Sullivan, Variety Support Manager, Southern WA: 0499 580 260
Dion Bennett, Wheat Breeder: 0400 031 911
End Point Royalty Office: (08) 7111 0201
agtbreeding.com.au